

of regeneration; but these are not the only conditions of division. It is especially easy in flat animals or in those which are slender and elongated; when the animal is equally developed in the three dimensions, the softness and contractility of the body must be greater. Another condition is that the various sections of the body must not differ too much as regards their importance to the whole; but recent observations, showing that even the head and fore part of the body of the Chaetopod Annelides may be regenerated in many cases\*, indicate that this condition is not one of the most difficult to fulfil.

[To be continued.]

### BIBLIOGRAPHICAL NOTICE.

*Jottings during the Cruise of H.M.S. Curaçoa among the South-Sea Islands in 1865.* By JULIUS L. BRENCHLEY, M.A., F.R.G.S. With numerous Illustrations and Natural History Notices. Roy. Svo, pp. 487, pls. 50. Longmans, London: 1873.

THERE can be hardly any lover of natural history who has not longed to visit the islands of the Pacific, and none who has not envied the good fortune of Banks, Solander, and the two Forsters—voyagers to whom nearly each plant and animal they saw was new, while they were conscious of its novelty. That golden age is, indeed, rapidly passing away; but the present generation need not sigh in vain for worlds to explore. There are still hundreds of islands, not to say clusters of islands, every one a world in itself, untrodden by any white foot save that of the missionary or the whaler; and it needs no saying that neither the fisher of men nor the fisher of

parallel with that of the diameter; but from the time when the latter has acquired a certain magnitude, we do not see so clearly that there is a connexion between the two quantities. Individuality is manifested by one individual being provided earlier than another with the greater part of its arms, or by its growing more slowly, but devoting its growth to the formation of new arms.

I have at my disposal only three specimens of *A. microbrachia*, of which the diameter varies from 3 to 5 inches, whilst the number of arms at the same time increases from 32 to 38. In four specimens of *A. Kūbinjji* measuring from  $1\frac{3}{4}$  to 6 inches, the number of arms varies only from 21 to 24, and there is no parallelism between the number and the diameter; of *A. Cummingii* I only possess a single specimen ( $7\frac{1}{4}$  inches, 41 arms). In *A. (Pycnopodia) helianthoides* also it seems that new arms spring between the old ones.

\* See Kinberg, "Om Regeneration af hufvudet och de främre segmenterna hos en Annulat" (Öfvers. Vetensk. Akad. Förhandl. 1867), and Ehlers, 'Die Neubildung des Kopfes und des vorderen Körpertheils bei polychäten Anneliden' (1869).

beasts is much given to the promotion of natural history ; while of course that wicked traffic which has of late years sprung up among the isles of this broad ocean, and has excited the righteous indignation of all Christian people throughout the world, is yet less likely to profit the naturalist.

The author of this book enjoyed the opportunity of visiting some of these interesting islands as the guest of Commodore Sir William Wiseman, then commanding Her Majesty's ship 'Curagoa.' Mr. Brenchley was (for we regret to say we have to use the past tense in speaking of him) apparently one of those numerous Englishmen who go every where and do every thing short of writing books of travels. Herein they often show their wisdom ; for the most venturesome of wanderers and explorers are by no means always the best penmen, and Mr. Brenchley seems to have had an instinctive knowledge that this was his case. Though he had crossed the Rocky Mountains long ere the Pacific Railroad was projected, and had lived four years in the Sandwich Islands—though he had slipped down the crater of Pichincha and had coasted along Peru and Chili—though he had descended the Mississippi from its source and had made a "home tour" in such comparatively tame countries as Morocco and Algeria—though he had seen India and Ceylon, China and Mongolia, Japan and Australasia, and had finally returned home by the overland route of the Gobi Desert and Siberia, "he was more interested," we are told, "in collecting material objects, illustrative and commemorative of his varied travels, than in devoting himself to literary descriptions of them ;" and the work now before us "was the result of a promise."

By whom the promise was exacted we know not, nor does it signify. Mr. Brenchley died in its performance. The preface to this book, begun by the author, recounts the death of two of his shipmates, Mr. Foljambe and Mr. Meade, who had helped him in forming, and of two naturalists, Dr. Baird and Mr. George Gray, who had assisted him in determining his collections, and is finished by an unnamed friend. The narrative of the cruise, we must confess, is not very interesting. The "jottings" taken while it lasted must have indeed been very brief ; and the author seems to have been quite unaware of the chief points which deserved his attention, though he was accompanied by men who were at least practical naturalists :—one of the Messrs. Veitch ; Mr. Wall, for many years Curator of the Sydney Museum ; and Mr. Brazier, the shell-collector. Indeed not a small part of the narrative is made up of extracts from very well-known books, those of Erskine, Hood, Mariner, Seemann, and Williams being especially laid under contribution. Of course the dates of arrival at and sailing from the different islands are duly given ; but the original information concerning them and their products is meagre. As an average specimen we subjoin (from Chap. V.) all that is said of the natural history of Vavau, an outlier of the Tonga group.

"The island seemed entirely clothed with vegetation, among which the casuarina, the pandanus, and cocoa-nut trees, were

“easily distinguishable; the latter appearing to exist in greater  
 “abundance than I had ever before remarked in any one place. We  
 “saw a building resembling a church, with graves around it, and on  
 “the shore a whale-boat, two things indicative of civilization. There  
 “were also a good many canoes and canoe houses. The Curaçoa  
 “was speedily surrounded by canoes with red-headed men, their  
 “hair cut close to the scalp. These natives, who are of a brightish  
 “brown colour, are very well made, but with faces which, owing to  
 “their extremely flattened noses and very wide nostrils, are by no  
 “means pleasant to look on as compared with the natives of Savage  
 “Island. The greater part of their canoes were small; I saw one  
 “double one, the ends of which were ornamented with milky cowrie  
 “shells (*Cypræa lactea*). . . . In the afternoon I went on shore  
 “in the dingey. After crossing a reef, where I saw several varieties  
 “of madrepores, I found a convenient landing-place on a jetty of  
 “coral. On reaching the shore there were a few natives, who  
 “treated me with great respect. . . . The country appeared to  
 “me very pleasing, pretty even, with convenient roads [the island is  
 “the seat of a missionary], or rather paths, in all directions, continu-  
 “ously shaded either by the leaves of the cocoa-nut tree, the bread-  
 “fruit tree, or the kukui (*Aleurites*). The temperature was slightly  
 “lower than that of the Samoan group, but the air so much drier  
 “that I found it much more enjoyable than at Pango-Pango or  
 “Apia, where I always felt as if I was in a vapour-bath. I saw  
 “but two species of land-shells, very small and like those of Apia;  
 “the small birds, also, that I killed were similar to those I had pre-  
 “viously met with. I saw fields of yams, of taro of two kinds, sweet  
 “potatoes, bananas of three varieties, and pine-apples not yet ripe.  
 “A hibiscus covered with large yellow flowers was in abundance  
 “everywhere; the pawpaw apple, orange tree, pammelo or shad-  
 “dock, the lemon, citron, and other trees grow marvellously well in  
 “the island, and yield, it appears, fine large fruit. No trees that I  
 “saw were at all remarkable for their circumference or height. A  
 “species of ti-tree (*Dracæna*) here and there showed its flowers  
 “and fruits of a fine red. I also saw some plantations of ava, and  
 “frequently came upon patches of land in good condition for re-  
 “ceiving crops. The ferns did not appear to me very numerous;  
 “those I saw were of the same species I had previously met with  
 “in the Samoan Islands. I passed through several villages, and  
 “met a good many natives; the women for the most part had their  
 “bosoms covered with a sort of small pinafore, which only reached  
 “to the waist, and all of them had their hair cropped so close as to  
 “make them undistinguishable, as far as their heads were con-  
 “cerned, from the men; and, by means of lime paste (*chinam*),  
 “they brought the colour of their hair into a kind of harmony with  
 “that of their skin, making their hair of a redder hue than is usual  
 “in Samoa.”

After speaking of some of their industries, and quoting from Erskine  
 a description of their chapel, Mr. Brenchley briefly recounts his call  
 next day upon the Governor to procure horses with which to visit

the interior. But his "ride did not add much to the sum of our knowledge respecting the island." He goes on:—

"The soil of Vavau is of a dull red, and of so friable a nature that it crumbles in the hand like the ashes of Pompeii. Lava is to be found in many places, and a white stone riddled with holes, which some refer to the coral, but which appears to me to be rather a species of lava, like that formerly thrown out by Vesuvius, and which is still found in the Bay of Naples. This stone is very hard, heavy, and susceptible of a very fine polish. The igneous origin of these countries is, moreover, proved by the little island of Latte, situated some miles to the west, where there is now an active volcano, which I was sorry not to have visited."

Then follows, from Mr. Meade's manuscript journal\*, an account of the singular cave with its submarine entrance, originally described by Mariner, and so ingeniously introduced by Byron into his poem of 'The Island,' though the fact was unknown at the time to the writer. Mr. Brenchley concludes:—

"The island possesses no indigenous mammifers, those now found in it being of recent introduction. On the other hand, there is a great quantity and variety of fish and crustacea. The birds, as I have already remarked, present no great variety of species, and resemble those previously met with during our cruise.

"Besides the vegetables I have mentioned, cabbages and onions are cultivated. The principal product of the island is cocoa-nut oil; sugar-cane is grown, but on a very small scale; the same may be said of the cotton-plant."

This is not satisfactory; yet it is a fair if not favourable sample. The author no doubt did do his best to redeem his promise of writing a book about the cruise; but we are forcibly reminded of the old story of 'Eyes and No Eyes.' Yet the worst fault we have to find with the volume is the absence of any connexion between the author's narrative and the "Natural-History Notices" published at the end: nowhere in the former is the slightest reference made to the species figured or described in the latter; so that, if any of them be mentioned in the text, we can only hazard an identification. This is unfortunate; for the plates (especially those by Mr. Ford) are very good. Many new species were brought home by Mr. Brenchley (some of them having been already described in our own pages, while others appear now for the first time); and the names of Mr. George Gray, Dr. Günther, Dr. Baird, Mr. Frederick Smith, and Mr. A. G. Butler, the joint authors of these "Notices," are sufficient to require attention to them. It remains to say that 27 species of Birds are figured, 9 of Reptiles, 12 of Fishes (besides 3 more described), 33 of Shells (besides 1 more described), and 27 of Insects. Mr. Brenchley's collections, we are told, have been divided

\* In the preface (p. vi) the author states that a variety of circumstances prevented his making use of the papers of this intelligent and distinguished young officer, whose premature death was a severe loss to the service; but both here and elsewhere Mr. Brenchley's volume contains extracts from them.

between the British Museum and that of Maidstone. There is also a fair map, on which the ship's course during the cruise is traced. This was as follows:—Sydney to Norfolk Island, thence to Niue or Savage Island, the Samoa group, the Friendly group (from Vavau, already mentioned, in the north to Tongataboo in the south), then to the Feejees and across to Anatom, then northward through the New Hebrides and Banks Islands to Santa Cruz, thence to some half dozen of the Solomon group, back again to Eramango in the New Hebrides, and thence by the Loyalty Islands and New Caledonia to Sydney. The book has the great merit of an Index.

## MISCELLANEOUS.

*On a new Species of Bubaline (Alcelaphus tora) from Abyssinia.*

By Dr. J. E. GRAY, F.R.S. &c.

THE British Museum in the early part of the year received a young specimen of a Bubaline from Abyssinia, which bore so much resemblance to the Caama from South Africa that I did not venture to describe it as a distinct species until I should receive more materials. The Museum has just received the skin &c. and the skeletons of adult specimens of both sexes of this animal, which proves to be a most distinct and well-marked species.

These animals were sent to the Museum under the name of "Tora" or "Thora" (for the word is spelt in both ways); I therefore propose to call it *Alcelaphus tora*.

*Alcelaphus tora.*

Bright pale bay; rump, inside of ears, and hinder side of legs whitish brown; tail with a tuft of black bristles. Horns slender, expanded, and rather recurved at the tip; of the female slender.

*Hab.* Abyssinia (Dembelas).

The horns are slender compared with the other species of *Alcelaphus*, and have some relation to those of the Sassayby, or *Damalis lunatus*; but it has the long slender skull of *Alcelaphus*. The young specimen, which appears to be a male, has shorter and thicker horns than the two adults more lately received.

The male of the Tora (*Alcelaphus tora*) has a large, round, convex tuft, about the size of a penny piece or larger, of darker hair in front of each eye. This tuft is marked, but not so distinctly, in the head of the young male and adult female. I do not find any such tuft in the head of the male Bubaline in the Museum, which was for many years alive in the Zoological Gardens; but the hair of the sides of the head in front of the eyes is longer than on the rest of the face.

A young specimen of the Caama is figured, from a living specimen in the Earl of Derby's park, in the 'Knowsley Menagerie.'